Inventor(s): LUGINSLAND Application No.: 09/538,941

Attorney Docket No.: 021123-0258030

I. AMENDMENTS TO THE CLAIMS

Claim 1. (Currently Amended) A rubber mixture comprising solution styrene/butadiene copolymers and organosilanes of the general structure:

$$R^{1}R^{2}R^{3}Si-R^{4}-Z \qquad (I)$$

wherein R^1 , R^2 and R^3 independently of one another are H, (C_1-C_4) alkyl, (C_1-C_4) alkoxy or halogen and the number of alkyl groups is ≥ 1 ; $R^1 = \text{ethoxy}$, $R^2 = R^3 = \text{methyl}$, R^4 is a linear or branched (C_1-C_{18}) (C_3-C_{18}) divalent hydrocarbon group; and Z = H, halogen, SCN, SH or $S_x-R^4-\text{SiR}^1R^2R^3$, where x is 2 to 10.

Claim 2. (Canceled)

Claim 3. (Original) Rubber mixtures according to Claim 1, comprising the organosilanes in an amount of 0.1 to 15 wt.%, based on the amount of rubber used.

Claim 4. (Original) Rubber mixtures according to Claim 1, comprising organosilanepoly-sulfane and organoalkylsilane.

Claim 5. (Currently Amended) Rubber mixtures according to Claim 4, wherein the organosilanepolysulfane is a silane in which:

 R^1 = ethoxy or methoxy, $R^2 = R^3$ = methyl, R^4 = propylene or isobutylene and $Z = S_{x^-}$ R^4 -Si R^1 R^2 R^3 , where x has a statistical mean value of 2 to 4.

Claim 6. (Canceled)

Claim 7. (Currently Amended) Rubber mixtures according to Claim 1, comprising a synthetic rubber, a silicic acid as filler and an organosilanepolysulfane selected from the group consisting of bis(3-{dimethylethoxysilyl}propyltetrasulfane and bis(3-{dimethylethoxysilyl}propyl)-disulfane.

Claim 8. (Currently Amended) Rubber mixtures according to Claim 1, comprising a synthetic rubber, a silicic acid as filler and an organosilanepolysulfane selected from the group consisting of bis(3-{dimethylethoxysilyl}propyltetrasulfane and bis(3-{dimethylethoxysilyl}propyl)-disulfane, and an alkylsilane other than said organosilanepolysulfane.

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Claim 9. (Previously Presented) Process for the preparation of rubber mixture comprising at least one filler in addition to the rubber, said process comprising adding an organosilane polysulfane according to claim 1 in said rubber mixture.

Claim 10. (Previously Presented) Process for the preparation of rubber mixtures which contain at least one filler in addition to the rubber, comprising adding an organosilanepolysulfane according to Claim 1 and an organoalkylsilane.

Claim 11. (Original) A molding obtained from a rubber mixture according to Claim 1.

Claim 12. (Previously Presented) A pneumatic tire comprising the molding according to claim 11.

Claim 13. (Previously Presented) A tire tread comprising the molding according to claim 11.

Claim 14. (Original) A method for using rubber mixtures according to Claim 1 for the production of moldings, comprising adding the rubber mixture of Claim 1 to a molding composition, and molding the molding composition in a mold for tires or tire treads.

Claim 15. (Currently Amended) A rubber mixture comprising solution styrene/butadiene copolymers and an organosilane of formula (I):

$$R^{1}R^{2}R^{3}Si-R^{4}-Z (I)$$

wherein R^4 , R^2 and R^3 independently of one another are H, (C_1-C_4) alkyl, (C_1-C_4) alkoxy or halogen and the number of alkyl groups is ≥ 1 ; $R^1 = \text{ethoxy}$, $R^2 = R^3 = \text{methyl}$, R^4 is a linear or branched (C_1-C_{18}) (C_3-C_{18}) divalent hydrocarbon group; and Z = H, halogen, SCN, SH or S_x - R^4 -Si $R^1R^2R^3$, where x is 2 to 10; and

wherein the organosilane is mixed with the rubber in unsupported form or supported on a carrier selected from the group consisting of silicic acids, natural silicates, synthetic silicates, aluminum oxide, and carbon black.

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Claim 16. (Previously Presented) Rubber mixture according to claim 15, wherein the organosilane is

bis(3-{dimethylethoxysilyl}propyltetrasulfane or bis(3-{dimethylethoxysilyl}propyl)-disulfane.

Claim 17. (Previously Presented) Rubber mixture according to claim 16, further comprising an alkylsilane other than said organosilane.

Claim 18. (Previously Presented) A molding obtained from the rubber mixture of claim 15.

Claim 19. (Previously Presented) A pneumatic tire comprising a molding according to claim 18.

Claim 20. (Previously Presented) A tire tread comprising a molding according to claim 18.

Claim 21. (Currently Amended) A rubber mixture comprising rubber and an organosilanes of the general structure:

$$R^1R^2R^3Si-R^4-Z$$
 (I)

wherein

 R^1 = ethoxy or methoxy, $R^2 = R^3$ = methyl, R^4 = propylene or isobutylene and $Z = S_x - R^4 - SiR^1R^2R^3$, where x has a statistical mean value of 2 to 4.

Claim 22. (Currently Amended) A rubber mixture comprising rubber and an organosilane of formula (I):

$$R^{1}R^{2}R^{3}Si-R^{4}-Z (I)$$

wherein R^1 = ethoxy or methoxy, $R^2 = R^3$ = methyl, R^4 = propylene or isobutylene and $Z = S_x - R^4 - SiR^1R^2R^3$, where x has a statistical mean value of 2 to 4, and

wherein the organosilane is mixed with the rubber in unsupported form or supported on a carrier selected from the group consisting of silicic acids, natural silicates, synthetic silicates, aluminum oxide, and carbon black.

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